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## (54) Title of the invention : DOWN-HOLE FLUID FLOW CONTROL SYSTEM AND METHOD HAVING DYNAMIC **RESPONSE TO LOCAL WELL CONDITIONS**

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(57) Abstract :

A fluid flow control system that is installed downhole and has a dynamic reaction to the circumstances of the local well. A tubing string that may be manipulated into an operational position inside a wellbore is included in the system. In order to separate the first zone from the second zone, annular barriers are placed between the tubing string and the wellbore. A device that regulates the flow of fluid is positioned inside of each zone. A flow tube that is operable associated with the fluid flow control device of the first zone is operable to establish communication between the second zone and the fluid flow control device in the first zone in such a way that a differential pressure between the first zone and the second zone is operable to actuate the fluid flow control device of the first zone from a first operating configuration to a second operating configuration. This allows the fluid flow control device of the first zone to be actuated from a first operating configuration to a second operating configuration.

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